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(54) Abstract Title  
**Entertainment machine with award enhancement**

(57) An entertainment machine having a supplementary game displaying region 17 having one or more game feature areas 18 through which play can advance to make awards available therefrom. The machine further includes award enhancement means 24 which can be used to enhance awards made available. The award enhancement means provides variable award enhancement in correspondence with the award available and may comprise a display region of the machine operative to display award enhancement options from which a selection may be made.

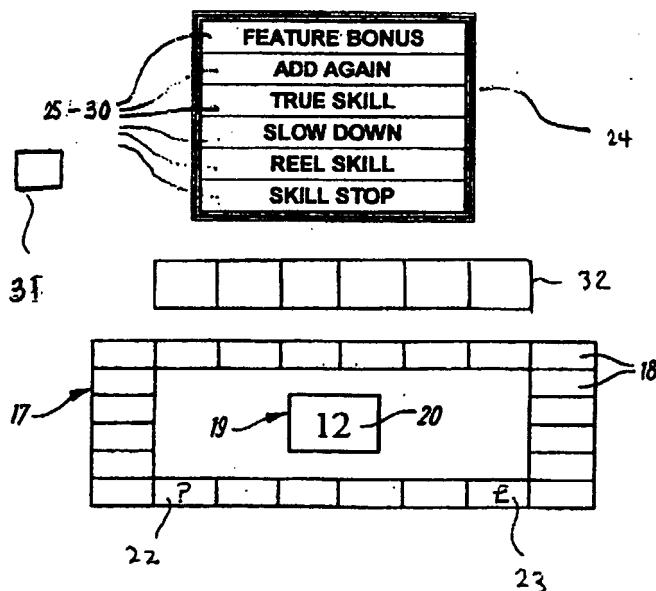


Fig.4

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The claims were filed later than the filing date but within the period prescribed by Rule 25(1) of the Patents Rules 1995.

GB 2 366 435 A

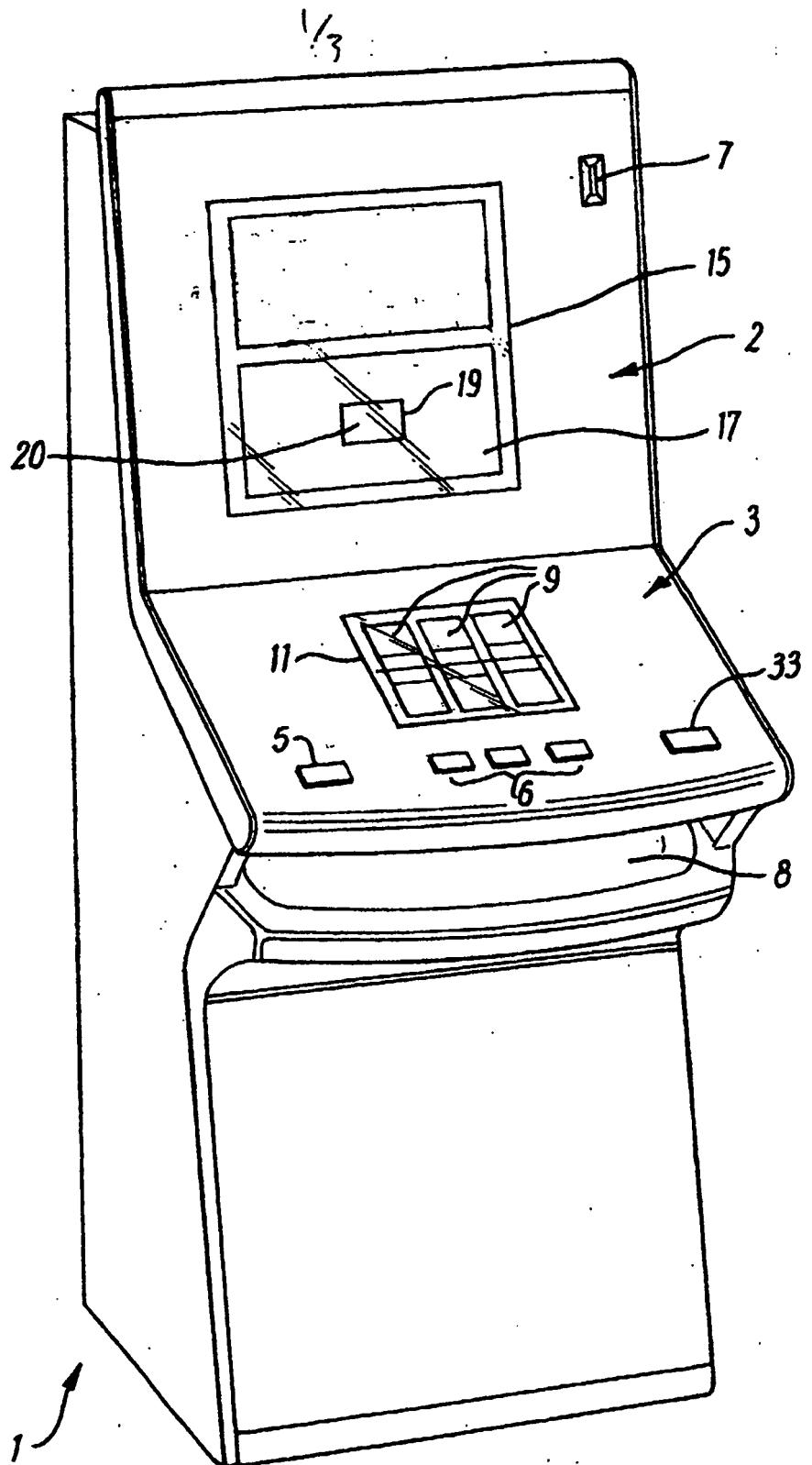
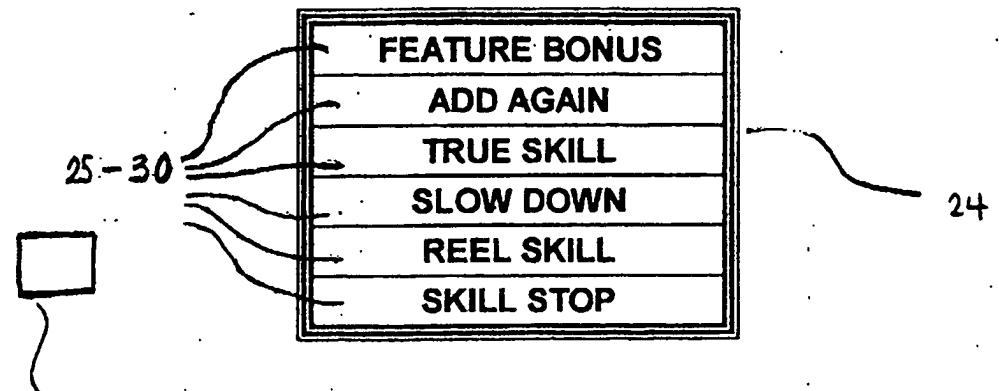


Fig 1

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3.F

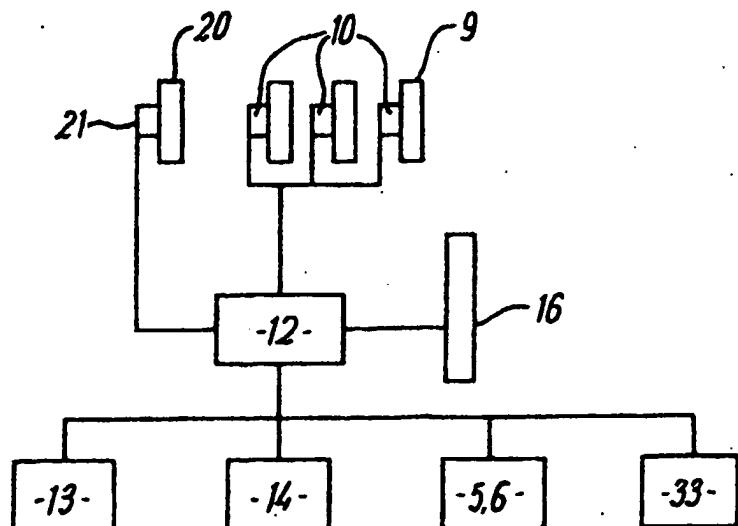
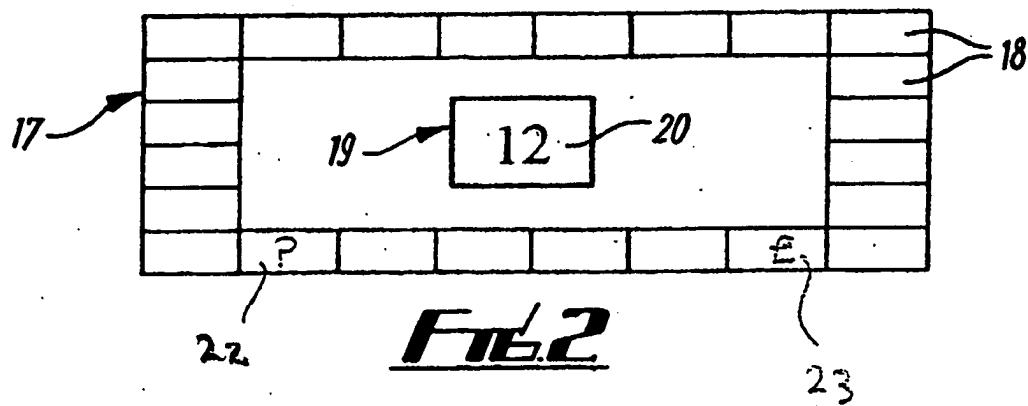


Fig.3

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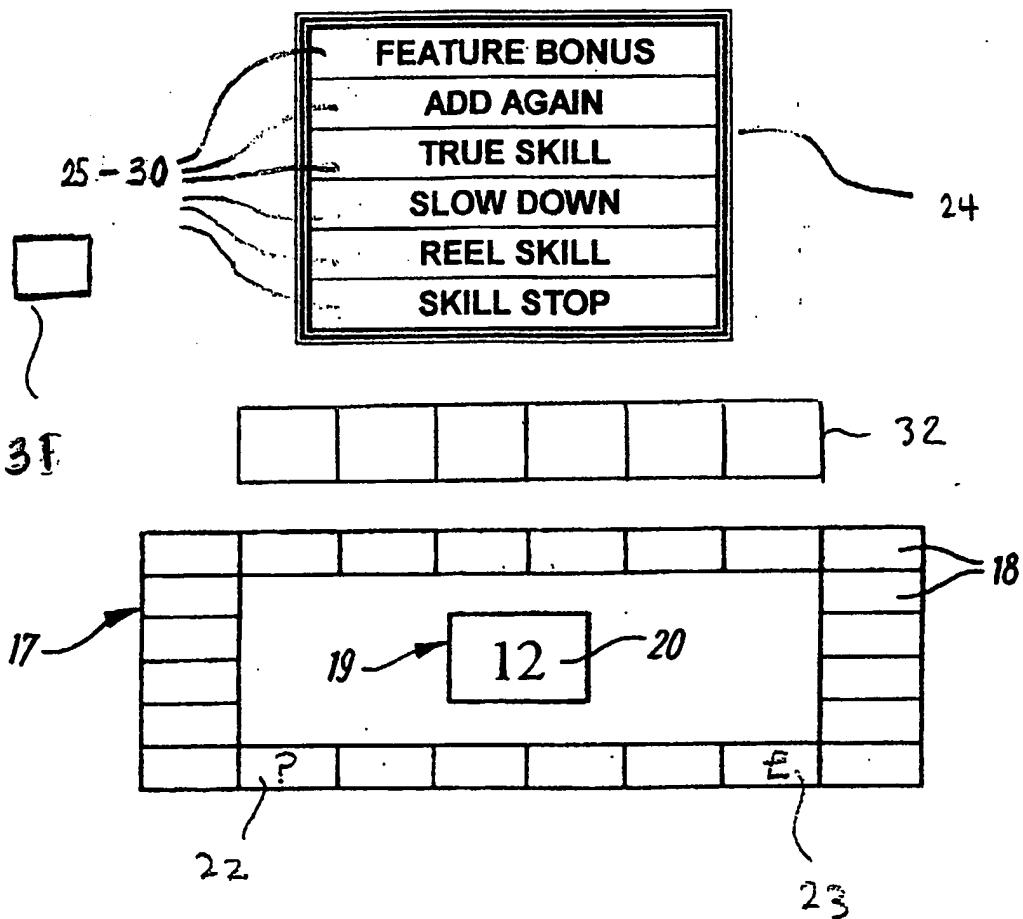


Fig. 4

ENTERTAINMENT MACHINES

This invention relates to player-operable entertainment machines, particularly coin-operated amusement with prizes (AWP) machines, such as "fruit" or "poker" machines of the kind having a main display device for displaying a selected combination of symbols at a win zone. As used herein, the term coin is intended also to cover tokens, charge or credit cards or any other means of supplying credit or monetary value.

The main display device of a fruit machine may comprise multiple side-by-side reels which are rotatable about a common horizontal axis within a housing behind a window at the win zone. Each reel has symbols at equally spaced positions around its periphery and the reels can be brought to rest with one or more symbols on each reel displayed through the window on a win line or win lines.

If the displayed combination of symbols constitutes a predetermined winning combination an award may be made available to the player.

It is well known to provide a supplementary display or 'games feature' which can be used to enhance the entertainment value of the machine and provide additional or alternative opportunities for winning.

In particular, it is known to provide a panel having sections which can be selectively illuminated to represent movement from location to location within a region, e.g. a trail so as to simulate the playing of a board game.

Play is transferred from the main reels to the supplementary feature

on a random or predetermined basis, and then illumination of the panel sections may be effected by, or in correspondence with, a rotatable subsidiary feature reel, or otherwise, representing the spin of a reel or roll of a dice or other selection method.

- 5           Awards or award possibilities may be made available to the player in dependence on the location in the region to which play has progressed. Certain positions in the supplementary region may offer a 'bonus' feature which can be used by the player to gain an advantage in the supplementary game. It is well known for secondary games to present the player with
- 10          multiple 'bonuses'.

An object of the present invention is to provide a games feature having enhanced award possibilities.

- According to the invention there is provided an entertainment machine having a supplementary game playing display region having one or
- 15          more game feature areas through which play can advance to make awards available therefrom and further including award enhancement means which can be used to enhance the awards made available, herein the said award enhancement means provides variable award enhancement in correspondence with the award available.

- 20          With this arrangement, there may be enhanced award possibilities, in the sense of a wider range of kinds of awards and/or wider range of routes to the attainment of awards, which can enhance game-playing

entertainment. As desired, but not necessarily, there may be enhancement of award value or frequency.

Awards available may be of any suitable nature, including monetary pay out, free moves (e.g. along a path/trail), free games, scored points, 5 'nudges' or 'holds' in a reel game or other games features. For example, the awards may offer the player a predetermined number of 'nudges' in a reel game.

Accordingly, preferably the award enhancement means may offer extra monetary pay out, points, moves, nudges, over and above that offered 10 by the basic award.

For example, if the play has advanced to an 'award' position offering a cash prize, the award enhancement zone may offer the option of re-selecting that award.

Alternatively, the award may consist of allowing the player to make 15 a selection from a mystery group of awards. In this case, the award enhancement option may be such that it allows the player to view the selection more slowly or clearly, giving the player the opportunity to choose an award selectively.

Alternatively, or additionally, however the award enhancement means 20 may offer an additional award which is of a different nature to the basic award already offered.

The award enhancement means may display a plurality of award

enhancement options from which a selection can be made. Such selection may be made by the player or automatically or by some other method outside the player's influences.

- Some or all of the possible award enhancement options may be
- 5 displayed and, depending on the state of play, i.e. the position in the games area to which play has advanced, the appropriate award enhancement option indicated as available.

- Awards made available (whether enhanced or otherwise) may be automatically awarded, or may be credited to the player for future award,
- 10 or the player may be given the option of trying to increase the award, e.g. by gambling this with a conventional "gamble" feature, prior to award of credit.

- Provision may be made for storage or accumulation of awards, enhanced awards and award enhancements e.g. for subsequent use in the
- 15 supplementary game in another games feature of the machine.

There may be provided player operable control means to allow the player to choose to obtain an award, or gamble, or other bonus or store the award.

- There may be provision for the award enhancement means to be
- 20 available successively such that repeated award enhancement for a single award are made available.

The award enhancement means may take any suitable form and may

comprise a display region of the machine, e.g. a display region which is separate from, adjacent or incorporated within the supplementary game-playing region or other display region of the machine.

- Indication of the availability of the award enhancement means may
- 5      be achieved by illumination of a/the zone indicating symbol(s) or button which may be located on the display region.

The award enhancement means may be selectable by the player so that the player has the option of using this. Selection may be by one or more player-operable controls, for example a push-button associated with

10     the award enhancement means.

Alternatively, the award enhancement means may be automatically available for all or part of a game.

The supplementary game-playing region may have a number of sections, which include award sections, and which play can progress in

15     correspondence with selection of a number of steps using a random selector such as a main or auxiliary reel or other suitable apparatus and then play progresses to an award section, and an award may be made available therefrom.

The sections may be arranged in any suitable manner e.g. they may

20     be in sequence so as to form a trail or trails which may be in a closed loop or the like, and around which play can progress.

The sections may be selectively illuminated to represent movement

from location to location, e.g. along a trail.

The award enhancement means may comprise a selection of the game-playing region and this section may be separate from any trail portion of the region.

- 5       The award enhancement means may be available automatically at the beginning of each supplementary game i.e. each time play transfers from the main game to the supplementary game.

- In one embodiment the machine includes means for storing a number of credits in a player's favour, which credits may be exchanged by a player  
10      for an award enhancement. The machine may allow a player to exchange credits for one or more award enhancements from a number of available options. Different numbers of credits may be required in exchange for different award enhancement options.

- 15      The machine preferably includes a display operative to indicate the number of credits a player has accumulated, and preferably includes a user operable control to enable selection of award enhancements in return for credits.

- In one arrangement award enhancements are selected as follows. The machine includes a display capable of showing a number of award  
20      enhancements. Wherever a player has sufficient credits to exchange for a bonus the display indicates which award enhancements the player may choose from. To exchange credits for an award enhancement a player

presses a button on the machine. The machine then displays the available award enhancements one after another. The player chooses an award enhancement by pressing the button when a chosen enhancement is displayed.

5           Other arrangements are of course possible.

Most preferably, the entertainment machine is an 'amusement with prizes' (AWP) machine, particularly but not exclusively of the fruit machine or poker machine kind using actual (or simulated) rotatable reels as mentioned above. In this case, the display region is preferably a  
10          supplementary display region for use with a games feature additional to a main display of the machine.

The invention will now be described further by way of example only and with reference to the accompanying drawings in which:-

Figure 1       is a diagrammatic perspective view of one form of an  
15              entertainment machine according to the invention;  
Figure 2        is an enlarged diagrammatic view of part of the display of the  
                  machine of Fig. 1;  
Figure 3        is a block circuit diagram of the machine; and  
Figure 4        is an enlarged diagrammatic view of an alternative form of part  
20              of the display of the machine of Figure 1.

Referring to the drawings, Fig. 1 shows a fruit machine having a floor-standing box shaped housing 1 having a front wall which includes

upper and lower glass panels 2, 3, a number of operating buttons 5, 6, a coin slot 7 and a payout opening 8.

Within the housing 1 there are three axially aligned reels 9 having say 16 symbols at regularly spaced positions around their peripheries. The reels 5 9 are axially rotatable and are drivably connected to respective stepper motors 10. The reels 9 are arranged behind a window 11 defined by a printed region of the lower glass panel 3. Each reel 9 can be arrested by the respective stepper motor 10 at any one of 16 stopping positions in which one symbol is in precise registration with a horizontal win line in the 10 centre of the window 11 and two further symbols are visible above and below the the win line.

The stepper motors 10 are connected to a microprocessor-based control unit 12. This unit is also connected to a coin-mechanism 13, a payout mechanism 14 and the buttons 5, 6.

15 In use the player inserts coins into the coin mechanism 13 through the slot 7 sufficient to generate credit for one or more games, and the machine is actuated so that a game can now be played. The game commences after a start button 5 has been pressed and the reels 9 spin and then come to rest so as to select a combination of symbols displayed on the 20 win line. The displayed symbol combination is assessed by the control unit 12 and a win indication is given in the event that the combination is of a predetermined winning nature.

The control buttons 6 can be used to perform 'hold' or 'nudge' functions, when made available to the player, so that the player can seek to influence the outcome of a game, in conventional manner.

5       The upper panel 2 is a transparent glass panel and within this there is a printed display region 15, which can be back-illuminated with a bank of lamps 16, and which provides a supplementary games feature.

As shown, this games feature comprises a wrap around trail 17 comprising a series of printed sections 18 marked with decoration, information and symbols.

10      In the centre of the trail is a printed window behind which an auxiliary feature reel 20 is rotatable. The reel 20 has around its periphery the numbers 1 to 12 corresponding to the values which can be selected with two dice. The reel 20 can be rotated with a stepper motor 21, controlled by the control system 12, and brought to rest with one of the numbers shown through the window 19.

15      Play can progress around the trail 17 by successive back illumination of the section 18 simulating movement through a number of steps corresponding to the number selected with the feature reel 20.

20      A plurality of the trail sections 18 are marked with 'award' symbols each one being different from another and indicated by appropriate symbols or otherwise.

Above the trail 17, there is an award enhancement box 24 divided

- into six sections 25 - 30 marked with respective wording representing award enhancement options (or bonuses) corresponding respectively with trail section awards to provide appropriate enhancement of an award available. Thus, if an award is a 'cash' award, the corresponding bonus is
- 5      'add again' which allows the player to process the award position again and so double the cash award. Alternatively, if the award is a free main reel game, the bonus may be a 'reel skill' or 'true skill' bonus which enhances the win opportunities in the reel game awarded by making reel-hold buttons available to the player to increase their control over the reel game. The
- 10     award may be a 'mystery' award to be selected from a plurality of awards displayed only briefly to the player preventing or hindering informed selection of an award. Thus the corresponding award enhancement option, in this case, may enable the awards to be displayed for longer so that the player can choose their award selectively.
- 15     The sections can be back illuminated to show availability and thus enable selection of the corresponding award enhancement options.
- A press button 31 is located alongside the bonus box and is illuminated when available for operation.
- 20     Play transfers to the trail 17 in the usual way on a random or predetermined basis e.g. when predetermined transfer symbols on the main reels 9 are selected on the win line or otherwise.
- On transfer to the trail 17 the award enhancement or 'bonus' box 24

is activated and all sections illuminated to show the availability of the bonus feature.

- The player can then operate a press button 33 to cause the feature reel 20 to rotate and select a number which causes play to progress along
- 5       the trail 17 to a selected section 18 at which a symbol on the section 18 is back illuminated.

- In the case where play progresses to an award section this key symbol is illuminated indicating to the player that an award is available, and also a corresponding bonus option 25 - 30 from the bonus box 24 and
- 10      button 30 is illuminated so as to allow enhancement of the award.

The machines control unit automatically selects the award enhancement option which is appropriate to the award.

- The player may then choose to select the award enhancement option by pressing the button 30. After the award enhancement has been
- 15      selected, there is a small possibility (controlled by the machine control unit) of the bonus box being immediately reactivated to offer a repeat award enhancement to the player.

- The player may be given the opportunity of storing and/or accumulating bonuses for future use in the game (or other game features of the machine) using appropriate buttons (not shown). There may be provision for the player to gamble with bonuses using appropriate buttons (not shown).

After the award has been collected, play may then continue either along the trail 17 or in the main reel game, providing sufficient credit is available. Of course, the player may be given the opportunity of storing awards for future use or gambling awards, using appropriate press-buttons 5 (not shown).

The availability of the award enhancement box 24 is controlled by the machine control unit so that while it is always available on entry to the trail game, thereafter it may be available on a random/pseudo random basis.

10 The award enhancement (bonus) box may also be activated by awards offered in other games features, e.g. the main reel games feature or additional supplementary features.

As with the above embodiment the award enhancement (or bonus) varies in accordance with the award offered in each games feature.

One or more limitations may be imposed on the foregoing by virtue 15 of time, or number of operations, or game duration or game outcome or otherwise. Thus, successive operations of the feature reel 20 may be limited in accordance with a predetermined parameter or may be permitted to continue until a symbol is selected on a section 18 of the trail 17 which terminates play of the feature game. Accumulated awards or award 20 enhancements may be maintained throughout successive games or may be reset or cancelled at the end of a game or at the end of play of the feature game.

With the arrangement described above, there are enhanced possibilities for attaining awards in the feature game which provides additional player entertainment.

In an alternative embodiment of the machine described in relation to Figures 1 to 3 the printed display region 15 is of the form shown in Figure 4. Referring to Figure 4 in which the same reference numerals are used as Figure 3 to identify common elements the manner in which the display differs from that shown in Figure 3 is by inclusion of an additional display region 32. This region is divided into a plurality of parts which may be individually back lit.

The purpose of the region 32 is to indicate a number of credits stored in a player's favour. A number of credits may be made available to a player at the start of a game, alternatively or additionally a player may earn credits during play.

Accumulated credits may be exchanged for the award enhancements indicated by sections 25 to 30 appearing in region 24 of the display. The number of credits required in exchange for a particular award enhancement varies with the enhancement. For example "FEATURE BONUS" and "REEL SKILL" are each available for one credit, "ADD AGAIN" and "TRUE SKILL" are each available for two credits and "SLOW DOWN" and "SKILL STOP" are each available for three credits. During play the sections of the display corresponding to the award enhancement(s) that is/are available to a player

are illuminated. For example if a player has only one credit stored only "FEATURE BONUS" and "REEL SKILL" will be available and thus illuminated. If three or more credits are stored all the credits will be available and therefore illuminated.

- 5            To select an available award enhancement a player depresses button 31. The machine then successively illuminates the available award enhancements one by one. A player may then select an award enhancement by depressing button 31 again when the desired award enhancement is illuminated.
- 10          It is of course to be understood that the invention is not intended to be restricted to the details of the above embodiment which are described by way of example only.

CLAIMS

1. An entertainment machine having a supplementary game playing display region having one or more game feature areas through which play can advance to make awards available therefrom and further including award enhancement means which can be used to enhance the awards made available, wherein the said award enhancement means provides variable award enhancement in correspondence with the award available.  
5
2. An entertainment machine as claimed in claim 1, wherein the award enhancement means is operative to display a plurality of award enhancement options from which a selection can be made.  
10
3. An entertainment machine as claimed in claim 2, wherein the award enhancement means comprises a display region of the machine comprising a number of sections each corresponding to an award enhancement option.  
15
4. An entertainment machine as claimed in claim 3, wherein appropriate award enhancement options are made available for selection by a player depending upon the state of play by illumination of the sections of the display region corresponding to the available options.  
20
5. An entertainment machine as claimed in any of claims 2 to 4, wherein award enhancement options may be selected by a player.
6. An entertainment machine as claimed in any preceding claim, wherein

the award enhancement means is operative to enhance award value and/or frequency.

7. An entertainment machine as claimed in any preceding claim operative to offer a monetary award and wherein the award enhancement means is operative to enhance the award by allowing a player to reselect it.
8. An entertainment machine as claimed in any preceding claim operative to allow a player to select from a group of awards and wherein the award enhancement means is operative to allow the player to view the groups of awards more clearly or slowly.
9. An entertainment machine as claimed in any preceding claim, wherein the award enhancement means is operative to offer an award in addition to an award made available from the feature game areas.
10. An entertainment machine as claimed in any preceding claim, wherein the award enhancement means is made available automatically at the beginning of each supplementary game.
11. An entertainment machine as claimed in any preceding claim including means for storing a number of credits in a player's favour, which credits may be exchanged by the player for an award enhancement.
12. An entertainment machine as claimed in claim 11 operative to allow a player to exchange credits for one or more award enhancements,

selected from a number of available award enhancement options.

13. An entertainment machine as claimed in either claim 11 or 12, wherein a different number of credits is required in exchange for different award enhancement options.
- 5       14. An entertainment machine as claimed in any of claims 11 to 13 including a display operative to indicate the number of credits a player has accumulated.
- 10      15. An entertainment machine as claimed in any of claims 11 to 14 including a user operable control to enable selection of award enhancement options in return for credits.
- 15      16. An entertainment machine as claimed in any of claims 11 to 15, including a display capable of showing a number of award enhancements and arranged so that when a player has sufficient credits to exchange for an award enhancement option the display indicates which award enhancement option or options the player may choose from.
17. An entertainment machine substantially as herein described with reference to Figures 1 to 3 or as modified as described with reference to Figure 4 of the accompanying drawings.



INVESTOR IN PEOPLE

Application No: GB 0102909.9  
Claims searched: 1-17

Examiner: Robert Barrell  
Date of search: 21 December 2001

**Patents Act 1977**  
**Search Report under Section 17**

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.S): G4V (VAA)

Int Cl (Ed.7): G07F 17/32 & 17/34

Other: ONLINE: EPODOC, JAPIO & WPI

**Documents considered to be relevant:**

Category	Identity of document and relevant passage	Relevant to claims
X	GB 2349494 A (IGT UK) Page 6 line 7 onwards.	1 - 6, 10 - 12 & 14-16
X	GB 2333880 A (BARCREST) Whole document.	1 - 6 & 9
X	GB 2262642 A (MAYGAY) Page 11 line 6 onwards.	1 - 6, 9, 11, 12 & 14 - 16
X	GB 2226436 A (BELL-FRUIT) Whole document.	1 - 7, 9, 11 & 14
X	GB 2222712 A (BARCREST) Page 1 line 17 on	1, 6, 9, 11, 12 & 14.

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|---|---|---|--|
| X | Document indicating lack of novelty or inventive step   | A | Document indicating technological background and/or state of the art.  |
| Y | Document indicating lack of inventive step if combined with one or more other documents of same category. | P | Document published on or after the declared priority date but before the filing date of this invention.          |
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